Reactivity of metals in oxygen

**1)** Compare and contrast the reaction of magnesium and oxygen with the

reaction of sulfur (non-metal) and oxygen. In your answer you should:

• identify any observations you would make for **each** reaction

• link each observation to the chemical species involved in each reaction

• write a balanced symbol equation for **each** reaction.

**2)** The metals calcium and copper may react when heated in oxygen.

The table below gives the observations made when calcium and copper are heated in oxygen

|  |  |
| --- | --- |
| **Metal** | **Reaction when heated in oxygen** |
| Copper | Does not burn but does form a black coating. |
| Calcium | Burns, producing a white ash. |

Discuss the reactivities of calcium and copper metals. In your answer, you should:

identify the chemical products formed in any reactions

link the chemical products formed to the observations given in the table

write balanced equations for the reactions that occur

fully explain why calcium is placed before copper on the Activity Series (refer to the resource booklet).

© 2015 <http://www.chemicalminds.wikispaces.com>

NCEA questions and answers reproduced with permission from NZQA

OpenDyslexia font <http://opendyslexic.org/get-it-free/>